

Appl. No. 09/879,698  
Appeal Brief in Response  
to final Office action of 2 November 2004

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**IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE**

Appl. No. : 09/879,698  
Applicant(s) : Gutta et al.  
Filed : 6/12/2001  
TC/A.U. : 2636  
Examiner : Lai, Anne Viet Nga  
Atty. Docket : US-010302

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On: 20 March 2005

By: 

Title: **VEHICLE TRACKING AND IDENTIFICATION OF EMERGENCY /LAW  
ENFORCEMENT VEHICLES**

Mail Stop: **APPEAL BRIEF - PATENTS**  
Commissioner for Patents  
Alexandria, VA 22313-1450

**APPEAL UNDER 37 CFR 41.37**

Sir:

This is an appeal from the decision of the Examiner dated 2 November 2004, finally  
rejecting claims 1-21 of the subject application.

This paper includes (each beginning on a separate sheet):

1. Appeal Brief;
2. Claims on Appeal; and
3. Credit card authorization in the amount of \$500.

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US-010302 Appeal Brief 4.B02

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## **APPEAL BRIEF**

### **I. REAL PARTY IN INTEREST**

The above-identified application is assigned, in its entirety, to Koninklijke Philips Electronics N. V.

### **II. RELATED APPEALS AND INTERFERENCES**

Appellant is not aware of any co-pending appeal or interference which will directly affect or be directly affected by or have any bearing on the Board's decision in the pending appeal.

### **III. STATUS OF CLAIMS**

Claims 1-21 are pending in the application.

Claims 1-3, 8, 10-14, and 16-21 stand rejected by the Examiner under 35 U.S.C. 102(e).

Claims 4-7, 9, and 15 stand rejected by the Examiner under 35 U.S.C. 103(a).

These rejected claims are the subject of this appeal.

### **IV. STATUS OF AMENDMENTS**

No amendments were filed subsequent to the final rejection in the Office Action dated 2 November 2004.

### **V. SUMMARY OF CLAIMED SUBJECT MATTER**

The invention addresses a system for identifying and tracking emergency vehicles in the vicinity of a user's vehicle (Applicants' page 1, first paragraph). At least one camera (104, 106 in FIG. 1) is mounted on the user's vehicle (102), and video image data from the camera is displayed on a display (108a) inside the vehicle (page 2, lines 21-25). In one embodiment, the camera includes pan, tilt, and zoom capabilities for providing an enhanced view of an emergency vehicle (200 in FIGs. 2 and 3) on the display (page 2, lines 25-28). The user is provided control means to facilitate camera selection and identification of the emergency

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vehicle, such as a touch-screen input or a speech-recognition device (page 3, second full paragraph). In another embodiment, the system includes a tracking system that continually tracks the identified vehicle (page 4, lines 1-6), and in another embodiment, the system includes a classification system that automatically identifies emergency vehicles (page 4, second full paragraph).

As claimed in independent claim 1, the invention comprises an apparatus (100) for detecting an approaching emergency/law enforcement vehicle from a secondary vehicle (102), the apparatus comprising:

- at least one camera (104, 106) mounted on the secondary vehicle (page 6, lines 20-23);
- a display surface (108) mounted inside an interior of the secondary vehicle (102) for displaying video image data (FIG. 2) from the at least one camera (page 7, lines 12-21);

- at least one of a pan, tilt, and zoom motor operatively connected to the at least one camera (104, 106) for providing an enhanced view (FIG. 3) of an emergency/law enforcement vehicle (200) displayed on the display surface (108) (page 7, lines 22-25; page 8, lines 13-30);
- and

- control means (108a, 112, 114, 116) for controlling the at least one pan, tilt, and zoom motors to provide the enhanced view (page 7, line 25 – page 8, line 13; page 10, lines 17-20).

As claimed in independent claim 14, the invention comprises an apparatus (100) for detecting an approaching emergency/law enforcement vehicle from a secondary vehicle (102), the apparatus comprising:

- at least one camera (104, 106) mounted on the secondary vehicle (102) (page 6, lines 20-23);

- a display surface (108) mounted inside an interior of the secondary vehicle (102) for displaying video image data (FIG. 2) from the at least one camera (page 7, lines 12-21);

- tracking means (116) for tracking an identified emergency/law enforcement vehicle displayed on the display surface (200) (page 10, lines 12-21); and

- identification means (114, 108a) for indicating the emergency/law enforcement vehicle to be tracked (page 10, lines 21-28).

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As claimed in independent claim 17, the invention comprises an apparatus (100) for detecting an approaching emergency/law enforcement vehicle from a secondary vehicle (102), the apparatus comprising:

at least one camera mounted (104, 106) on the secondary vehicle (102) (page 6, lines 20-23);

a display surface (108) mounted inside an interior of the secondary vehicle (102) for displaying video image data (FIG. 2) from the at least one camera (page 7, lines 12-21);

classification means (118) for classifying vehicles in the video image data and identifying those of the classified vehicles which are emergency/law enforcement vehicles (page 11, lines 20-24); and

tracking means (116) for tracking the identified emergency/law enforcement vehicle in the video image data (page 10, lines 21-28; page 11, lines 24-28).

#### **VI. ISSUES TO BE REVIEWED ON APPEAL**

Claims 1-3, 8, 10-14, and 16-21 stand rejected under 35 U.S.C. 102(e) over Breed et al. (USPA 2002/005778, hereinafter Breed).

Claims 4-6, 9, and 15 stand rejected under 35 U.S.C. 103(a) over Breed and Lee (USP 5,680,123).

Claim 7 stands rejected under 35 U.S.C. 103(a) over Breed, Lee, and Strumolo et al. (USP 6,535,242, hereinafter Strumolo).

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## VII. ARGUMENT

### Rejection under 35 U.S.C. 102(e) over Breed

MPEP 2131 states:

"A claim is anticipated only if *each and every element* as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The *identical invention* must be shown in as *complete detail* as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

#### Claims 1-3, 8, and 10-13

Claim 1, upon which claims 2-3, 8, and 10-13 depend, claims an apparatus for detecting an approaching emergency/law enforcement vehicle that includes a display surface mounted inside an interior of a secondary vehicle for displaying video image data from a camera mounted on the secondary vehicle; at least one of a pan, tilt, and zoom motor operatively connected to the at least one camera for providing an enhanced view of an emergency/law enforcement vehicle displayed on the display surface; and control means for controlling the at least one pan, tilt, and zoom motors to provide the enhanced view.

Breed does not teach displaying image data from a camera on a display surface.

Breed does not teach a pan, tilt, or zoom motor operatively connected to a camera.

Breed does not teach control means for controlling the pan, tilt, or zoom motor.

Breed teaches a vehicle monitoring system that includes cameras mounted on a vehicle. Breed teaches against displaying camera images, and specifically teaches displaying icons of vehicles on a display that presents these icons in relation to the user's vehicle. In Breed's FIG. 11, item 140 illustrates the display, wherein the oval shaped icon at the center of the display represents the user's vehicle, and the rectangular icons represent the vehicles surrounding the user's vehicle.

Breed specifically teaches against presenting video image data on a display in the interior of a user's vehicle at paragraph [0007]:

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"[0007] Many systems have also been proposed that display a view of the blind spot, using a video camera, onto a display either on the instrument panel or on the windshield as a "heads-up" display. Any system which displays a picture of the object on the screen that is inside the vehicle is also going to confuse the driver since he or she will not be able to relate that picture to an object such as another vehicle in the blind spot on the side of the host vehicle. Additionally, the state of the art of such displays does not provide equally observable displays at night or in bright sunlight. Thus, displays on a CRT or LCD are not natural and it is difficult for a driver to adjust to these views. The lighting of the views is too faint when sunlight is present and too bright when the vehicle is operating at night. Therefore, none of these television-like displays can replace the actual visual view of the occupant." (Breed)

The Office action cites Breed's paragraph [0221] for teaching the applicants' claimed display of video image data from a camera. The cited paragraph reads:

"[0221] FIG. 11 illustrates control module 170 which contains a variety of electronic components 172-178. The control module is connected to the blind spot monitors by wires, not shown, or wirelessly and in turn it connects to a display on the instrument panel 145 or a heads-up display 140. Based on the calculations performed in a microprocessor 177, the control module 170 creates the icons on displays 140 and 145 and additionally initiates audio and haptic warnings as described above." (Breed)

As this text clearly indicates, Breed processes the information from the cameras, and provides an iconic display, and not a display of video image data from a camera, as specifically claimed in claim 1.

Breed does not teach cameras with pan, tilt, or zoom motors, as specifically claimed in claim 1. As the Office action acknowledges, Breed specifically teaches the use of "on-chip electronic pan/tilt and zoom control" (final Office action, page 3, line 1) and cites paragraphs [0186]-[0187] for this teaching. The office action cites paragraph [0169] of Breed for teaching a motor, but the applicants respectfully note that this motor is used for a scanning radar, and not a camera.

Because Breed does not teach a camera with pan, tilt, or zoom motors, Breed cannot be said to teach a controller that controls such pan, tilt, or zoom motors, as specifically claimed in claim 1.

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Because Breed does not teach each and every element as set forth in claim 1, the applicants respectfully maintain that the rejection of claims 1-3, 8, and 10-13 under 35 U.S.C. 102(e) over Breed is unfounded.

#### **Claims 14 and 16**

Claim 14, upon which claim 16 depends, claims an apparatus for detecting an approaching emergency/law enforcement vehicle that includes a display surface mounted inside an interior of the secondary vehicle for displaying video image data from at least one camera that is mounted on the secondary vehicle.

As noted above, Breed teaches against the display of video image data from a camera at paragraph [0007], and specifically teaches the display of icons representing the user's vehicle and surrounding vehicles at paragraph [0221].

Because Breed does not teach each and every element as set forth in claim 14, the applicants respectfully maintain that the rejection of claims 14 and 16 under 35 U.S.C. 102(e) over Breed is unfounded.

#### **Claims 17-21**

Claim 17, upon which claims 18-21 depend, claims an apparatus for detecting an approaching emergency/law enforcement vehicle that includes a display surface mounted inside an interior of the secondary vehicle for displaying video image data from at least one camera that is mounted on the secondary vehicle.

As noted above, Breed teaches against the display of video image data from a camera at paragraph [0007], and specifically teaches the display of icons representing the user's vehicle and surrounding vehicles at paragraph [0221].

Because Breed does not teach each and every element as set forth in claim 17, the applicants respectfully maintain that the rejection of claims 17-21 under 35 U.S.C. 102(e) over Breed is unfounded.

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### Rejection under 35 U.S.C. 103(a) over Breed and Lee

MPEP 2143, states:

"THE PRIOR ART MUST SUGGEST THE DESIRABILITY OF THE CLAIMED INVENTION ... The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). ... The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)".

also, at MPEP 2144:

"A *prima facie* case of obviousness may also be rebutted by showing that the art, in any material respect, teaches away from the claimed invention. *In re Geisler*, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed. Cir. 1997)."

### Claims 4-6 and 9

Claim 1, upon which claims 4-6 and 9 depend, claims an apparatus for detecting an approaching emergency/law enforcement vehicle that includes a display surface mounted inside an interior of a secondary vehicle for displaying video image data from a camera mounted on the secondary vehicle.

Lee teaches the display of video image data from cameras on a display in the interior of a user's vehicle. As detailed above, Breed specifically teaches against the presentation of video images from a camera on a display in the interior of a user's vehicle at paragraph [0007]: "Any system which displays a picture of the object on the screen that is inside the vehicle is also going to confuse the driver".

Because Breed specifically teaches against the display of video image data from a camera on a display in the interior of a user's vehicle, the applicant respectfully maintain that there is no suggestion in the prior art to combine Breed with Lee, and thus the rejection of claims 4-6 and 9 under 35 U.S.C. 103(a) is unfounded.



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### **Claim 15**

Claim 14, upon which claim 15 depends, claims an apparatus for detecting an approaching emergency/law enforcement vehicle that includes a display surface mounted inside an interior of a secondary vehicle for displaying video image data from a camera mounted on the secondary vehicle.

As noted above, Lee teaches the display of video image data from cameras on a display in the interior of a user's vehicle, and Breed specifically teaches against the presentation of video images from a camera on a display in the interior of a user's vehicle at paragraph [0007]: "Any system which displays a picture of the object on the screen that is inside the vehicle is also going to confuse the driver".

Because Breed specifically teaches against the display of video image data from a camera on a display in the interior of a user's vehicle, the applicant respectfully maintain that there is no suggestion in the prior art to combine Breed with Lee, and thus the rejection of claim 15 under 35 U.S.C. 103(a) is unfounded.

### **Rejection under 35 U.S.C. 103(a) over Breed, Lee, and Strumolo**

#### **Claim 7**

Claim 1, upon which claim 7 depends, claims an apparatus for detecting an approaching emergency/law enforcement vehicle that includes a display surface mounted inside an interior of a secondary vehicle for displaying video image data from a camera mounted on the secondary vehicle.

Both Lee and Strumolo teach the display of video image data from cameras on a display in the interior of a user's vehicle, whereas Breed specifically teaches against the presentation of video images from a camera on a display in the interior of a user's vehicle at paragraph [0007]: "Any system which displays a picture of the object on the screen that is inside the vehicle is also going to confuse the driver".

Because Breed specifically teaches against the display of video image data from a camera on a display in the interior of a user's vehicle, the applicant respectfully maintain that there is no suggestion in the prior art to combine Breed with Lee or Strumolo, and thus the rejection of claim 7 under 35 U.S.C. 103(a) is unfounded.

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### CONCLUSIONS

Because Breed does not teach the display of video image data from cameras on a display in the interior of a user's vehicle, as specifically claimed in each of the applicants' claims, the applicants respectfully request that the Examiner's rejection of claims 1-3, 8, 10-14 and 1-21 under 35 U.S.C. 102(c) over Breed be reversed by the Board, and the claims be allowed to pass to issue.

Because Breed specifically teaches that a "system which displays a picture of the object on the screen that is inside the vehicle is also going to confuse the driver", and the applicants specifically claim displaying video image data from cameras on a display in the interior of a user's vehicle, the applicants respectfully request that the Examiner's rejection of claims 4-7, 9, and 15 under 35 U.S.C. 103(a) over Breed and Lcc, or Breed, Lee and Strumolo, be reversed by the Board, and the claims be allowed to pass to issue.

Respectfully submitted,



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APPENDIX  
CLAIMS ON APPEAL

1. An apparatus for detecting an approaching emergency/law enforcement vehicle from a secondary vehicle, the apparatus comprising:
  - at least one camera mounted on the secondary vehicle;
  - a display surface mounted inside an interior of the secondary vehicle for displaying video image data from the at least one camera;
  - at least one of a pan, tilt, and zoom motor operatively connected to the at least one camera for providing an enhanced view of an emergency/law enforcement vehicle displayed on the display surface; and
  - control means for controlling the at least one pan, tilt, and zoom motors to provide the enhanced view.
2. The apparatus of claim 1, wherein
  - all of the pan, tilt, and zoom motors are operatively connected to the at least one camera.
3. The apparatus of claim 1, wherein
  - the at least one camera comprises forward and rearward facing cameras, each of which are operatively connected to a pan, tilt and zoom motor, and each of which have a control means for controlling their respective pan, tilt, and zoom motors.
4. The apparatus of claim 3, further comprising
  - selection means for selecting the display of video image data from one of the forward and rearward facing cameras for display on the display surface.

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5. The apparatus of claim 4, wherein

both the video image data from the forward and rearward facing cameras are displayed together on the display surface and wherein the selection means comprises a touch screen whereby touching the display from one of the forward or rearward facing cameras selects the corresponding video image data for display on the display surface.

6. The apparatus of claim 1, wherein

the control means comprises a touch screen whereby touching a portion of the display surface controls at least one of the pan, tilt, and zoom motors to provide an enhanced view of the portion touched.

7. The apparatus of claim 1, wherein

the control means comprises a speech recognition and command system for recognizing a spoken command by a user and for controlling at least one of the pan, tilt, and zoom motors accordingly.

8. The apparatus of claim 1, further comprising:

detecting and tracking means for detecting and tracking an emergency/law enforcement vehicle displayed on an indicated portion of the display surface,

said detecting and tracking means further functioning as the control means for controlling at least one of the pan, zoom, and tilt motors; and

identification means for indicating the portion of the display surface which contains the emergency/law enforcement vehicle to be tracked.

9. The apparatus of claim 8, wherein

the identification means comprises a touch screen whereby touching a portion of the display surface indicates the portion of the display which contains the emergency/law enforcement vehicle to be tracked.

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10. The apparatus of claim 1, further comprising:

classification means for classifying vehicles in the displayed video image data and identifying those of the classified vehicles which are emergency/law enforcement vehicles; and

tracking means for tracking the identified emergency/law enforcement vehicle in the video image data,

said tracking means further functioning as the control means for controlling at least one of the pan, zoom, and tilt motors.

11. The apparatus of claim 10, further comprising

means for alerting a user of the secondary vehicle that at least one emergency/law enforcement vehicle has been identified in the video image data.

12. The apparatus of claim 11, wherein

the means for alerting the user comprises an audible alarm operatively connected to one of the classification or tracking means.

13. The apparatus of claim 11, wherein

the means for alerting the user comprises a visual alarm operatively connected to one of the classification or tracking means.

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14. An apparatus for detecting an approaching emergency/law enforcement vehicle from a secondary vehicle, the apparatus comprising:

at least one camera mounted on the secondary vehicle;

a display surface mounted inside an interior of the secondary vehicle for displaying video image data from the at least one camera;

tracking means for tracking an identified emergency/law enforcement vehicle displayed on the display surface; and

identification means for indicating the emergency/law enforcement vehicle to be tracked.

15. The apparatus of claim 14, wherein

the identification means comprises a touch screen whereby touching a portion of the display surface indicates the portion of the display which contains the emergency/law enforcement vehicle to be tracked.

16. The apparatus of claim 14, further comprising

at least one of a pan, tilt, and zoom motor operatively connected to the at least one camera for providing an enhanced view of an emergency/law enforcement vehicle displayed on the display surface,

wherein

the tracking means is operatively connected to at least one of the pan, zoom, and tilt motors for controlling the same.

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17. An apparatus for detecting an approaching emergency/law enforcement vehicle from a secondary vehicle, the apparatus comprising:

at least one camera mounted on the secondary vehicle;

a display surface mounted inside an interior of the secondary vehicle for displaying video image data from the at least one camera;

classification means for classifying vehicles in the video image data and identifying those of the classified vehicles which are emergency/law enforcement vehicles; and

tracking means for tracking the identified emergency/law enforcement vehicle in the video image data.

18. The apparatus of claim 17, further comprising

at least one of a pan, tilt, and zoom motor operatively connected to the at least one camera for providing an enhanced view of an emergency/law enforcement vehicle displayed on the display surface,

wherein

the tracking means is operatively connected to at least one of the pan, zoom, and tilt motors for controlling the same.

19. The apparatus of claim 17, further comprising

means for alerting a user of the secondary vehicle that at least one emergency/law enforcement vehicle has been identified in the video image data.

20. The apparatus of claim 19, wherein

the means for alerting the user comprises an audible alarm operatively connected to one of the classification or tracking means.

21. The apparatus of claim 19, wherein

the means for alerting the user comprises a visual alarm operatively connected to one of the classification or tracking means.